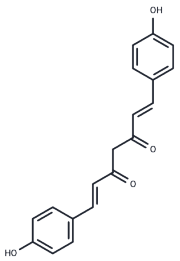
Data Sheet (Cat.No.TL0007)

TargetMol

Bisdemethoxycurcumin

Chemical Properties



CAS No. : 24939-16-0

Formula: C19H16O4

Molecular Weight: 308.33

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Bisdemethoxycurcumin (Curcumin III) is a natural demethoxy derivative of curcumin. It is a potent activator of macrophage phagocytosis, interacting with 1α, 25-dihydroxy vitamin D3 to stimulate amyloid-β clearance by macrophages (optimal stimulation at 100 nM BDMC) [1]. More stable than curcumin in physiological media, BDMC suppresses proliferation of cancer cells [2]. It down-regulates the transcriptional coactivator p300, suppressing the Wnt/β-catenin pathway, and inhibits LPS induction of iNOS expression [3].
Targets(IC50)	Epigenetic Reader Domain,Ferroptosis,DNA/RNA Synthesis,P-gp,Wnt/beta-catenin

Solubility Information

Solubility	DMSO: 67 mg/mL (217.3 mM),Sonication is recommended. Ethanol: 5 mg/mL (16.22 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2433 mL	16.2164 mL	32.4328 mL
5 mM	0.6487 mL	3.2433 mL	6.4866 mL
10 mM	0.3243 mL	1.6216 mL	3.2433 mL
50 mM	0.0649 mL	0.3243 mL	0.6487 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Fiala, M., Liu, P.T., Espinosa-Jeffrey, A., et al. Innate immunity and transcription of MGAT-III and Toll-like receptors in Alzheimer's disease patients are improved by bisdemethoxycurcumin. Proceedings of the National Academy of Sciences of the United States of America 104(31), 12849-12854 (2007).

Sandur, S.K., et al. Curcumin, demethoxycurcumin, bisdemethoxycurcumin, tetrahydrocurcumin and turmerones differentially regulate anti-inflammatory and anti-proliferative responses through a ROS-independent mechanism. Carcinogenesis 28(8), 1765-1773 (2007).

Ryu, M.J., et al. Natural derivatives of curcumin attenuate the Wnt/β-catenin pathway through down-regulation of the transcriptional coactivator p300. Biochemical and Biophysical Research Communications 377(4), 1304-1308 (2008).